

Comparisons of Job Characteristics

Focus Occupation: [Computer Hardware Engineers \(17-2061\)](#)

Associated Occupation: [Network and Computer Systems Administrators \(15-1071\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 89

Focus Occupation: Computer Hardware Engineers (17-2061)

Associated Occupation: Network and Computer Systems Administrators (15-1071)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Computers and Electronics	8.4	21.5	22.7	0	Current knowledge level may be sufficient
Telecommunications	3.9	13.4	11.6	<	Expanded education and/or training may be required
Administration and Management	8.4	11.8	10.6	<	Expanded education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 84

Focus Occupation: Computer Hardware Engineers (17-2061)

Associated Occupation: Network and Computer Systems Administrators (15-1071)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Complex Problem Solving	9.1	12.2	12.6	0	Current skill level may be sufficient
Systems Analysis	6.5	11.1	9.7	<	A higher skill level may be required
Systems Evaluation	6.4	11.0	9.8	<	A higher skill level may be required
Quality Control Analysis	5.9	9.8	8.3	<	A higher skill level may be required
Programming	2.2	8.5	6.1	<<	Extensive development of skills in this area may be required
Technology Design	2.6	6.5	4.5	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 96

Focus Occupation: Computer Hardware Engineers (17-2061)

Associated Occupation: Network and Computer Systems Administrators (15-1071)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Information Ordering	9.9	11.8	11.4	0	Current ability level may be sufficient
Category Flexibility	9.0	10.7	10.0	0	Current ability level may be sufficient
Flexibility of Closure	7.8	10.2	7.9	<	Some improvement in abilities may be required
Fluency of Ideas	7.6	10.1	9.2	0	Current ability level may be sufficient
Selective Attention	8.7	9.9	8.3	<	Some improvement in abilities may be required
Perceptual Speed	7.4	9.0	6.0	<<	Extensive improvement in abilities may be required
Speed of Closure	5.9	7.7	3.5	<<	Extensive improvement in abilities may be required
Memorization	5.6	7.3	6.4	<	Some improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 71

Focus Occupation: Computer Hardware Engineers (17-2061)

Associated Occupation: Network and Computer Systems Administrators (15-1071)

Work Activities	Exclusivity of Activity
Communicate technical information	4
Develop policies, procedures, methods, or standards	21
Evaluate computer system user requests or requirements	81
Follow data security procedures	77
Provide technical support to computer users	80
Test computer programs or systems	78
Use computers to enter, access or retrieve data	3
Use knowledge of investigation techniques	16
Use spreadsheet software	18
Use word processing or desktop publishing software	17

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 81

Focus Occupation: Computer Hardware Engineers (17-2061)
Associated Occupation: Network and Computer Systems Administrators (15-1071)

Tools and Technologies	Exclusivity
Business function specific software	1
Computers	1
Content authoring and editing software	1
Data management and query software	1
Development software	4
Electronic and communication measuring and testing instruments	14
Industry specific software	1
Light and wave generating and measuring equipment	4
Network applications software	1
Operating environment software	12

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.